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HEALTH EDUCATION IN NINE SCHOOL SYSTEMS
OF NEW YORK STATE

BY
ANETTE M. PHELAN

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GENERAL VIEW

This paper is a report of observations of health education in the public schools of nine communities of New York State made between November 30 and December 18, 1925.

The State Department of Education selected the cities and made arrangements for the visits. The places visited were Binghamton, Johnson City, Elmira, Ithaca, Jamestown, Rochester, Syracuse, Utica and Schenectady.

Purpose

The purpose of the visits was to discover where good work in health education was in progress; of what the work consisted; where the emphasis was being placed; how the work was administered and supervised; and what factors were contributing to its success.

The Plan

The plan followed in the observations included:

- 1 Conferences with administrative and supervisory officers and teachers to understand the school policy regarding health education.
- 2 A view of school buildings and grounds for impressions as to adequacy, ventilation, cleanliness, facilities for play, etc.
- 3 A view of the medical, dental, nursing and clinical service to ascertain tendencies toward thoroughness, educational values and effectiveness in follow-up work.
- 4 Conferences with the person or persons responsible for health education organization to understand the point of view, the objectives and the relation of the health education program to the rest of the work in the school.

- 5 Classroom visits to learn the teacher-pupil relationship, the emphasis in health teaching, the methods used, etc.
- 6 Tests given to the low fifth grade to secure a sample of health knowledge at the command of the children of the grade, and the habits and attitudes developed.

Explanation of Terms

For the sake of clearness in this report, let it be understood that when the terms "health service," "health education" and "physical education" are used, the distinction between them is that made by Thomas D. Wood M.D., adviser in health education, Teachers College, Columbia University. Doctor Wood explains the terms as follows:

- 1 Health service includes the various protective measures to be conducted by the school for the conservation and improvement of the health of the pupils. These measures and procedures do not primarily involve the knowledge, responsibility, or activity of pupils themselves.
- a Health examinations. These include the monthly weighing of school children, and other factors required for the periodic health examination which should be made for every pupil at least once a year. Health examinations should include attention to the physical, mental, emotional and personality health of pupils.
- b Correction of remediable health defects. Some of these defects may be corrected in the elementary school, such as (1) certain conditions of malnutrition; (2) functional defects of posture and other orthopedic defects; (3) defective mental and emotional habits. The more serious health defects, requiring medical and surgical treatment, must be given attention outside of the school.
- c Daily health inspection. This part of health service is to discover whether the child is in good enough health to be in school that day, and to determine whether the pupil shows signs of health disturbance indicating the possibility of his conveying to other pupils some form of communicable disease. Daily health inspection should be differentiated from daily health habit inspection.
- d School sanitation. This is concerned with the school plant and its surroundings in construction, equipment and maintenance.
- e First aid and safety
- f Immunization of school children against infectious and communicable diseases. It is recognized today that protection of children by isolation, quarantine and forms of immunization against communicable diseases are as important for the life and health of

the child as the entire range of personal health habits and other phases of personal hygiene.

g The hygiene of instruction

- h Health of teachers, janitors or custodians, and other school officials and employees
- 2 Health education is the sum of experiences in school and elsewhere which favorably influence habits, attitudes and knowledge, relating to individual, community and racial health.
- 3 Physical education includes the fundamental psycho-motor activities, or the big brain-muscle activities, which are valuable in the growth and development of the child in the preschool age, as well as in the period of elementary instruction.

Physical education is the contribution made to the complete education of the child in the preparation for life by the fundamental big brain-muscle activities including play, games, athletics, gymnastics, dancing, pantomime, dramatic activities, swimming, hiking, camping, scouting activities and similar programs.

Physical education also logically and practically should recognize and include general life activities, practical work, industrial or social service activities, such as gardening, farming, housekeeping etc., if they are big brain-muscle activities and if they are healthful and educative.

From the distinction pointed out by Doctor Wood, it will be seen that the direct responsibility for health service rests with the highly trained specialist group of doctors, dentists and nurses on one hand, and on the other upon the school administration. Both groups are concerned with the problem of providing an environment for the child and promoting a condition of the child favorable to health.

It must also be evident that the responsibility for the health education of the child rests with the classroom teacher, acting either on her own initiative, without assistance or support from principal or supervisor, or working in accordance with an accepted plan for the individual school or the school system, with assistance of principal, supervisor or special subject matter teacher, or all.

It will be seen, furthermore, that the responsibility for physical education rests with another group of trained specialists in a position to render a specific type of health service, and upon whom rests the same obligation for observing the principles of hygiene of instruction as rests upon every other teacher of the child.

In hygiene of instruction are included:

- 1 An atmosphere created by the teacher in the classroom, favorable to enjoyment of work, vigorous effort culminating in success, and respect for personality and development of initiative.
- 2 A daily program furnishing a balance of mental and physical activity and frequent periods of relaxation.
- 3 Stimulating tasks suitable to the capacity of the child and in which there is a reasonable opportunity for success, with an adequate plan for attack and freedom to express personality in executing the plan.
- 4 Opportunities for the child to exercise his powers, physical, mental and social, without overstimulation or strain.
- 5 Equipment and materials such as books, charts etc., selected with a view of safeguarding the child from strain or other conditions unfavorable to health.

General Information

Policy of the administration and its influence on the health education program. On the whole the reaction of the school administration toward health education was friendly. In a small percentage of cases the attitude was one of tolerance. Frequently the confusion of the terms "health education," "health service" and "physical education" in the minds of the administrative officers was apparent, and a corresponding vagueness regarding the activities within these three fields. Where this was found, there was a general tendency to consider the attention accorded health service or physical education adequate to meet the health needs of the child. When this view extended to principal and classroom teacher, its influence was frequently evident in a lack of appreciation of the principles of hygiene of instruction and a failure to utilize classroom situations to develop in the child a sense of responsibility for promoting his own health and the health of others.

It was indeed gratifying to find that a few of the superintendents had been thinking the problem through and had arrived at the conclusion that health education can not be dismissed with the allotment of a 30-minute period a week to formal instruction in health knowledge, but because of its significance in the intellectual and social life of the child it must, to be effective, permeate the whole school program, showing itself as health values in the various classroom activities.

Where these superintendents have been able to instil in their supervisors, principals and teachers an appreciation of this conception of health education, its influence was felt alike in a greater respect for hygiene of instruction, a fuller utilization of subject matter and all classroom activities for developing attitudes and habits favorable to health.

Buildings and grounds. Overcrowding was evident in only two of the school buildings visited. As a result or a corollary of the overcrowding, the sanitary conditions were also undesirable. On the whole, the buildings were conveniently located, well-lighted and clean. Many of them were vacuum cleaned. The facilities for good ventilation were apparently in use in most of the schools. The visits were made in December during warm rainy weather. This may have accounted for the fact that while most of the classrooms posted temperature readings four times a day, the readings hovered about 70 degrees. It should be borne in mind that one of the important recommendations of the New York State Commission on Ventilation was that the temperature of the school room be not allowed to rise above 68 degrees.

Playgrounds were provided at or near most of the schools. Because of the damp weather, or for some other equally good reason, all the play periods visited were devoted to plays and games indoors.

Most of the programs provided for relaxation periods. Those observed usually were devoted to setting up drills.

Status of health education in the elementary schools. New York requires by law that 30 minutes a week be devoted to health teaching in the elementary school. The law is interpreted literally in many of the school systems, and a 30-minute period a week is frequently the full amount of time given the subject. Too frequently the situation was met by the teacher devoting 30 minutes once a week to formal instruction in health knowledge, including a little anatomy, a little physiology, some well-meant advice on what one should or should not do, and a description of evils resulting from doing the wrong thing.

A woeful lack of good materials of instruction in health was apparent, for these lessons were often overrunning with negative teaching and included too many scientific inaccuracies.

In many of the lessons observed there was a sincere effort to make the teaching carry over into habits for the purpose largely of meeting future needs.

Some desirable situations and tendencies observed. 1 A program of school athletics planned for the entire high school, and participation in it by the majority of the pupils.

2 Several attempts to make controlled studies of methods of health education.

- 3 A director of the elementary school together with a committee of classroom teachers and specialists making a study of opportunities for correlation of health education with other subjects of the elementary school.
- 4 A primary supervisor working on an integrated course of study including health education in the kindergarten and first grade.
- 5 An elementary school teacher, who had been in service over a quarter of a century, doing some splendid work on correlation of health education with other school subjects.
- 6 A growing recognition of the constructive value of the service of the classroom teacher in the program of health education.
- 7 Among certain groups of principals and teachers, a growing recognition of the need for something more than formal instruction in health knowledge, if the elementary school is to meet its responsibilities towards health education.
- 8 A growing recognition, by people working in the schools, of the importance to any school health program of the health standards of the community and the facilities for health education offered by that community.
- 9 A supervisor of junior high school together with the junior high school principals at work upon a program for the promotion of the physical, mental and social health of the junior high school pupils.
- 10 A tendency among medical examiners and school principals to express dissatisfaction with anything less than a thorough physical examination followed by effective work in removal of physical defects.
- 11 An appreciation among some of the medical examiners of the increased educational possibilities of the physical examination when the parent or classroom teacher is present.
- 12 Interest of many classroom teachers in a better understanding of the health condition of the pupils in their care.
- 13 Interest of many classroom teachers in improving the character and widening the scope of their own knowledge of health education.
- 14 Interest of many classroom teachers in materials of instruction on health education adapted to the elementary school.

Tests. Health Knowledge. One objective of the study of health education in the State was to obtain a sample of the health knowledge at the command of the children in the elementary school.

The Gates-Strang Health Knowledge Test, Form I, for grades 3 to 12, was used. This test consists of 64 items of health knowl-

edge. Each item is so expressed that the child is obliged to select the most reliable statement from among five.

The following sample will illustrate the test:

We should have fresh air
....... all the time
....... in daytime but not at night
...... at night but not in daytime
...... especially in summer

...... when we begin to get a headache

The child is instructed to read all five answers and then place a check on the dotted line preceding the one best answer. The number of right answers constitutes the child's score.

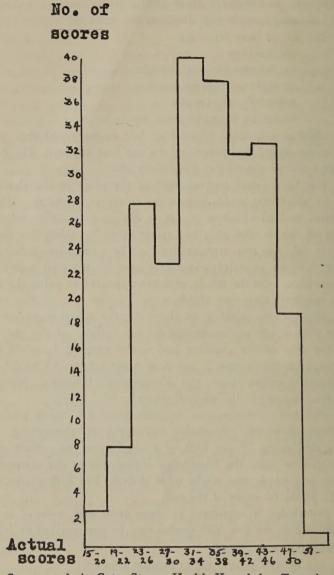
The low fifth grade was selected as the place in the elementary school in which the health knowledge would be sampled. The test was given to 223 children in seven classes. In cities where the director of health education had made plans for using the identical test later on, the test was omitted. The principals, the teachers and the children were interested and gave evidence of a fine spirit of cooperation. On the whole, children appeared to enjoy the test.

One hundred sixty-one children, or 72 per cent of the number tested, made scores equal to or above 31, the actual mean score for the low fifth grade as determined by the authors of the test. The top 5 per cent of the children had scores ranging from 48 to 51. The scores of the bottom 5 per cent ranged from 15 to 22. The accompanying graph shows the distribution of scores. Sixty-four is a perfect score for the twelfth grade.

The children's reactions to separate items of health knowledge were then observed. Assuming according to elementary school practice that when 75 per cent of a class gave the correct answer to any specific item, the knowledge tested was at the command of the class as a whole, one might infer that the low fifth grades tested knew 25 of the 64 items of the test.

The knowledge incorporated in these items and assumed to be at the command of the low fifth grades may be summarized as follows:

- 1 Nutrition and growth
 - a Children should eat at regular times.
 - b Children should sit down at the table and eat slowly.
 - c Pale, thin children should eat milk, bread and butter, and spinach.
 - d Hot cereal is a good food for breakfast.
 - e Milk is a most important food for children.
 - f Orange juice is a healthful drink for children.



Scores made in Gates-Strang Health Knowledge Tests in the low fifth grades of six cities of New York State Highest possible score, 64 Number of children tested, 223

2 Sanitation and care of food

- a Food should be protected from flies because they carry germs.
- b Cooked meat and vegetables should be covered and kept in a cool place.

3 Control of communicable disease

a There is less danger of giving a cold to someone else if the face is covered when one sneezes or coughs.

4 Fresh air

a The best way to get fresh air is to go outdoors in the sunshine.

5 Sleep

- a Long hours of sleep keep children well.
- b Best way to sleep is under light warm covers with the window open top and bottom.

6 Safety

- a Children should learn to swim in order to prevent accidents in the water.
- b In games, children should be careful not to trip or hit each other.

7 First aid

a When a child gets a cinder in his eye, it is best to have it taken out by someone who knows how.

8 Posture

a A good way to learn to sit well is to select chairs and desks at school of just the right size and shape.

9 Clothing

- a In the morning clothing should be selected for its suitability to the weather.
- b Loose clothing is best.

10 Emotional

- a When a child gets a low mark at school, it is a good thing to ask teacher's advice and follow it.
- b It is a good thing to feel happy and comfortable at meal time.

11 Care of the teeth

a Everyone should visit a dentist twice a year.

12 Care of the eyesight

a When a child needs glasses he should have an eye doctor fit them to his eyes.

It is hardly safe to assume that all low fifth grades have the foregoing knowledge at their command. In fact, the variation in

the degree to which any item might be said to be mastered was very marked between the individual schools. In one school the knowledge of one individual item might be at the command of 100 per cent of the children, while in another school only 53 per cent of the class might know it.

This variation between schools was found to exist to even a greater degree with reference to the items of health knowledge at the command of less than 75 per cent of the group as a whole. For example: 81 per cent of the children in one school knew that a child should drink from four to eight glasses of water daily, while only 37 per cent of the children in another school had that item of knowledge at their command.

On some of the items which we have been led to believe a child of the low fifth grade should know, however, all the grades made low scores. One of these items is that the best temperature for a room in which one is sitting reading is between 65 and 68 degrees. Another item which one might have supposed to be at the command of the fifth grade and on which all schools consistently made a low score, is that the best exercise for fourth grade girls and boys is active and outdoor play.

It is not the purpose of this paper to determine what health knowledge should or should not be taught in the elementary school preceding the high fifth grade, but merely to leave, in passing, the question of whether it might not be desirable that the health knowledge be selected in the light of the child's health needs during the period and on the basis of the value of the knowledge in developing habits and attitudes which tend to meet those needs.

Testing habits and attitudes. An attempt was made to test a few of the health habits and attitudes recognized as desirable in children of the elementary school. They were tested by questions which the children themselves answered. Some of the questions were fairly direct while some were so phrased, especially in the attitude test, as to make two opposing appeals to the child.

These experimental tests were used for the first time during the study. The fact that their validity and reliability had not been established makes them of less value in actually testing the habits and attitudes of the children. Rewording many of the questions would make them more valid. Perhaps some should be omitted entirely.

The results, however, are interesting, and may be taken for what they are worth. To forestall a tendency to overestimation among

those who might be actuated by a desire to make a good showing, the children were requested to leave all identifying marks off their papers. The children undertook the test with a fine spirit and the results are indicative of cooperation and a desire to answer honestly.

Of the 12 habits tested, the children claimed practice in varying tl S

egree. The figure following the statement of each r	
ne percentage of children tested claiming the pra	ctice of tha
	1 . 6.
1 Reading with the light falling on the page from behind.	m the left of
This habit was tested by the question:	ci cent
Whenever I am reading, I sit so the light falls on	my book
from behind me	my book
from my left side	
I do not notice direction	
2 Covering the face with a handkerchief when about	ut to sneeze.
9	er cent
Whenever I feel like sneezing in school	
I cover my face with my handkerchief	
I turn around	
I just sneeze	
3 Eating a regular full breakfast including cereal	
Tested by: 78 p	er cent
During the past week I have eaten a full break	fast including
cereal and milk.	
if I get up in time	
when I felt hungry every morning	
	er cent
Tested by:	ACT CCITE
Last night I was in bed	
five hours	
from seven to nine hours	
ten hours	
5 Brushing the teeth daily. 73 p	per cent
Tested by:	
I brush my teeth thoroughly	
once or twice a week	
not at all	
more than once a day	

6 Settling relling.	difficulties	over	playground		without per cent	quar-
Tested	by:					
When a p	laymate hur	ts me	without mea	ning to		
******	I settle it v I tell the te	eacher	-			
			ink about it			
7 Playing Tested	outdoors tw by:	o hou	rs a day.	65	per cent	
	•	I hav	e played out	of door	S	
	not at all all day long about two l	3				
8 Drinking	g at least th	ree gl	asses of mil	k daily.		
Tested	by:			64	1 per cent	
In last th	ree meals I	drank	altogether			
•	three glasse no milk					
	one glass o					
		kinds	s of vegetab			
Tested	•			6.	l per cent	
	t three mea					
*******		ore ki	fferent kind nds of veget potatoes		etables	
10 Regular	daily bowel	move	ment.	6:	l per cent	
Tested	by:					
During th	ne past week	my b	owels have	moved		
	once in a v	while				
	regularly e three times	-				
11 Safegua	rding other	childre	en from his	cold. 6	o per cent	
Tested	by:					
The last	time I had a	a cold				
	I went to s					
		_	om other ch			
•	I played in see me	the y	ard with son	ne childr	en who ca	ame to

12 Sleeping with bedroom window open.

wide open, 49 per cent opened at least an inch or two, 80 per cent

Tested by:

Every night last week I slept with my bedroom window

..... wide open

..... closed

..... raised an inch or two

If the results of the tests are indicative of the status of these particular habits in the low fifth grade, it would appear that the children in this grade get the proper amount of sleep for children of that age; that they are in the habit of eating breakfast in the morning, and including cereal and milk in the breakfast; that they try to protect others when they sneeze in school; and that they take the precaution when reading to sit so that direction of the light is correct.

The questions that arise are: In the light of the child's health needs

What habits are desirable?

Which ones are the whole or partial responsibility of the school? What opportunities does the school offer for their formation?

What knowledge is essential to strengthen the habits already formed or to rationalize the formation of other desirable ones?

The test on attitudes followed that on habits with the following results:

- 98 per cent of the children showed a sense of responsibility for protecting themselves and others from food known to be unclean, as indicated by disposal of a cookie accidentally dropped on the floor.
- 96 per cent showed an unwillingness to drink water not known to be pure, indicated by reaction to a hypothetical situation involving a hike, thirst, a creek.
- 90 per cent showed a preference for a breakfast of oatmeal, prunes, toast and milk to one including beefsteak, potatoes or waffles, bacon and coffee.
- 87 per cent indicated a preference for milk in a hypothetical party where a choice of tea, coffee or milk was given.
- 80 per cent indicated an unwillingness to sleep in a room with a closed window in a hypothetical case involving staying all

night with a friend who failed to open the window. This agrees with the group that raised the bedroom window at least an inch or two.

79 per cent indicated a sense of responsibility for safeguarding themselves from communicable disease by staying away from a playmate with measles.

78 per cent indicated an unwillingness to postpone the regular morning bowel movement even at the risk of being late for school. This is interesting in the light of the fact that only 61 per cent claimed the habit of a regular daily movement.

Though 75 per cent of the children claimed to have been in bed 10 hours the night before the test was given, only 35 per cent of them would have gone to bed if they had been given a chance to see Charlie Chaplin in the "Gold Rush" instead.

The preference for a good breakfast seems to agree with the habit of eating one, but the 87 per cent preference for milk does not show to any pronounced degree in the milk drinking habit.

SPECIFIC INFORMATION REGARDING INDIVIDUAL SCHOOL SYSTEMS

Ithaca

Organization and Distribution of Responsibility

The work is in process of organization under a health education committee comprised of a member of the board of education, the administrative officers of the school, all the workers directly interested in health activities and the special teachers. Those actively concerned about the health work are the school physician, who is also health officer for the city; a full-time dentist and a dental hygienist and two nurses. The health education work is under the supervision of the director of physical education and his two assistants.

Health Service

Health inspection. The health inspection made by the school physician is annual. Five minutes are given to each child. The child's blouse is opened at the neck, but not removed. The parents and teachers are not present.

The records are kept in the school in care of the principal. They are available to teachers, and contain a complete inventory of defects and corrections. Reports are sent to parents and to the physical education department.

Follow-up. The follow-up work after the inspection is done usually by mail because the supervising nurse considers the number of nurses inadequate for personal follow-up in addition to other services expected of them. Dental corrections occur more frequently than others. The school has a dental clinic, a memorial to John Rumsey. All cases needing attention are cared for here.

Control of communicable disease. 1 Diphtheria. By December 1, 1925, 1979 of the 3575 children enrolled in the school had been immunized against diphtheria.

- 2 Vaccination against smallpox is required of all pupils.
- 3 Parents and teachers are furnished with leaflet on symptoms of contagious diseases.
- 4 Children are excluded on suspicion by the principal, and all children who have been so excluded, or who have been sick or absent because some one in the home has been sick, are readmitted to school by the school physician.

Special study. With the cooperation of the local medical association, a study was made during the year 1924–25 of the

prevalence of enlarged thyroids in the school. Results showed the condition in 52 per cent of the girls and 26 per cent of boys. There were 3155 children examined. A treatment clinic is planned for this.

Johnson City

Organization and Distribution of Responsibility

The health work in Johnson City is organized for health service mainly, and is under the supervision of the school nurse. The school physician, on half time for examination purposes, is also half-time health officer for the city. The school system also has a full-time dental hygienist and provides clerical assistance for the nurse.

Health Service

Health inspection. The health inspection is made on school entrance and in grades 3 and 5. It is made by the school physician. Five minutes are given to the inspection of each child who is not stripped. A thorough examination is given to suspicious cases. The parents are seldom present during the examination. Sometimes the teachers are present. The records are kept in the nurse's office in each school, are available to the teacher, and contain a complete inventory of defects, also a record of corrections made. A report is sent to each home and to the physical education department. The report to the home is followed by a visit of the school nurse.

Follow-up. The responsibility for the follow-up work of the examination rests with the nurse. The records showed 80 to 90 per cent of defects removed during the past year.

Clinical facilities and provision for special groups. The school conducts a weekly dental clinic to which the dental hygienist refers children needing care. The local board of health conducts tuberculosis and venereal clinics weekly, and the State Department of Health holds an orthopedic clinic once a month. The local hospital through the influence of the school physician cares for many of the indigent operatives not otherwise provided for.

The Endicott-Johnson Company, shoe manufacturers, providing employment for over 50 per cent of the residents, pays for the treatment of members of the families of their employees. The Broome County Humane Society conducts a summer camp for tuberculosis contacts. Fourteen children from Johnson City were cared for in the camp last summer.

In the past the Endicott-Johnson Company has furnished milk to the malnourished cases in school, but beginning this year there is an effort to have the children buy their own milk. Control of communicable diseases. With the consent of their parents, 60 per cent of the school children have been immunized against diphtheria.

The town had an epidemic of smallpox last year. As a result, 75 per cent of the school children were vaccinated, although the law does not require vaccination in a place of that size. The teachers inspect the children daily for signs of communicable diseases and refer all suspicious cases to the nurse for exclusion. Children who have been absent from school because of illness are readmitted by the health officer or the nurse.

Community facilities for health. The Endicott-Johnson Company furnishes three beautiful playgrounds, well equipped, having tennis courts and swimming pools. They are utilized by the schools during the summer and after school hours. Their location is such that use during the day is not convenient. The company provides playground supervisors.

The company also has furnished a fine community house which is utilized by high school groups of girls and boys for their social affairs. The house is under good supervision.

In connection with the community house is a well-stocked, well-arranged library for both adults and children. The children's reading room is open when school is not in session. A trained children's librarian is in charge. Some good examples of art, statuary and painting are to be found in the library and community house.

Health education. The responsibility for health education has not been definitely placed and though all schools adhere to the state syllabus, the emphasis depends upon the interest of the individual teacher or school principal. The school nurse has stimulated a lively interest in health in some of the schools and hopes to induce all the principals to assume their responsibility toward the subject.

Elmira

Organization and Distribution of Responsibility

Three part-time physicians, working under the direction of Doctor Fudge, also on part time, take care of all the physical examinations. Doctor Harding of the State Reformatory spends one-half day each week in the schools examining mental and behavior cases and keeping in touch with cases previously examined. Three full-time nurses under the direction of a supervisory nurse work with the doctors. One full-time dental hygienist works in the school.

The responsibility for the health teaching has recently been transferred to the supervisor of elementary grades, who works with an advisory committee in inauguration of the new course of study in health, adopted this year.

Health Service

Health inspection. The children are given a health inspection annually. Five minutes is the average time spent on the child. The child is not stripped. The parents and teachers are not present during the examination.

The records are kept in the school attended by the child, under the care of the principal, and are available to the teacher. They contain a complete inventory of defects and corrections. Reports are sent to the parents and to the physical education department.

Follow-up. The final responsibility for follow-up work rests with the nurses, but the physical education department is taking its share. About 60 per cent of the defects were corrected last year.

The school conducts eye, ear, nose and throat clinics for the indigent, and the dental association has a clinic in which dental care is given for those who can not afford to pay for the service.

The State Department of Health conducts an orthopedic clinic once a month and the Tuberculosis Association, in cooperation with the county, holds a tuberculosis clinic weekly.

Provision for special groups. The tuberculosis contacts are cared for in a preventorium on a farm at the edge of the city. Twenty-three children were living at the farm when the visit was made. The public school system furnishes school equipment and provides a teacher for the children. The doctor and nurse call daily.

Milk is served daily to all children 10 per cent underweight.

The county defrays the expense of a summer camp for all tuber-culosis contacts among the children.

Control of communicable diseases. An attempt was being made to have all children under ten years immunized against diphtheria by the close of the first semester of the school year. Vaccination is not required by law in cities the size of Elmira but it is encouraged in all schools.

Incidental health inspection is made by the teachers, who refer suspicious cases to the principal or nurse. Either principal or nurse may exclude from school a child with suspicious signs. No child who has been absent from school may be readmitted except on recommendation of the school doctor who holds daily office hours for that purpose in the school administration suite.

Health service to teachers and janitors. For the past three years the teachers of this school system have been examined and advised regarding their own health. The superintendent states that this service has resulted in an increased appreciation of their own health possibilities and a definite interest on the part of teachers in the health of the school as a whole. He believes it has been a help in securing a proper adjustment of the teacher to her work.

The service has recently been extended to the janitors with the result that there is among them a more favorable and helpful attitude towards the health program of the school.

Community facilities for health. The Community Service Recreation Committee and Park Board, a semi-official organization, provides supervised playgrounds for the city. The playgrounds are utilized by the public schools.

The Parent-Teacher Association furnishes the milk for the malnourished children. The Child Welfare Organization provides preschool clinics. The local hospital gives free care for seriously malnourished children in order that their student nurses may have the benefit of training in that field. The Visiting Nurses Association gives bedside care to all school cases in need of it.

Achievement clubs among the school children organized by Rufus Stanley, a local philanthropist, stresses health habits as some of the important achievements.

The Rotary Club has equipped and sponsers a Reconstruction Home for Crippled Children. The public school system furnishes equipment and a teacher for the home.

The newspapers of the city furnish special space for all school activities and have been helpful in disseminating health knowledge.

Health Education

The responsibility for direction of the work rests upon the elementary school supervisor. Throughout the elementary school a definite time is set aside each week for instruction in health. A new course of study in health was constructed this year. The emphasis is on health habits. An effort is being made to help the classroom teacher to meet her responsibility in habit formation.

Home cooperation. The cooperation of the home is secured through the Parent-Teacher Association, which, according to the administrative officers, forms a strong bond between the school and the Elmira home. It is to be used to promote the formation of the health habits outlined in the new course of study.

Binghamton

Organization and Distribution of Responsibility

In Binghamton a coordinated plan is in operation. All the health activities are included in the department of health education. The director is Effic Knowlton, a former school principal. The distribution of responsibilities is as follows:

Activities included	Staff		
1 Medical	Doctor Sears, Director		
Medical examination	Three part-time physicians		
Medical service	Part-time eye, nose and throat specialist		
Dental service	Part-time dentist		
Oral hygiene	Two full-time dental hygienists		
Nursing	Six full-time nurses		
2 Physical education	Six full-time supervisors		
3 Nutrition	One full-time nutrition specialist		

Health Service

Health examination. A complete medical examination is given to each child on school entrance. The annual medical inspection is this year being replaced by a more thorough examination to be repeated at stated intervals throughout the elementary school period. The child is stripped to the waist. From 12 to 15 minutes are devoted to the examination of each child. The parents are welcome, though not always present. The child's teacher is not present at the examination.

The examination records contain a complete inventory of the child's physical defects together with the examiner's recommendations and corrections made. They are kept in the office of the director where they are available to the nurses and where the child's teacher may refer to them.

Reports are sent to the parents, the physical education department and the child's teacher.

Follow-up. Responsibility. The responsibility for the follow-up work rests with the school nurse. The physical education department assumes its share of the corrections that fall within that field, and the teachers assist in promoting an understanding of the situation in the home. Superintendent Daniel J. Kelley and Miss Knowlton, director of health education, state that the number of uncorrected defects is negligible.

Clinical facilities. a The school conducts orthopedic, eye, ear, nose and throat, dental and dental hygiene clinics of its own, and also utilizes the board of health clinics, tuberculosis clinic, the orthopedic, the eye, ear, nose and throat clinics of the Humane Society.

b The state orthopedic specialist and state psychiatrist conduct monthly clinics.

Control of communicable disease. The teachers conduct daily health inspection of the children to catch early signs of communicable disease. Suspicious cases are referred to the nurse.

No child who has been absent from school can be readmitted except by the school doctor. Doctor Sears believes that this ruling which applies to all absences is responsible for the lack of epidemics in the schools.

Vaccination against smallpox is required of all children in the schools. With the consent of the parents an increasing number of children are being immunized against diphtheria.

Provision for special groups. The school conducts a special class for the crippled children who are transported to and from school by bus. Two rooms are set aside for them and two teachers are in charge.

The Humane Society conducts a summer camp for pretuberculous children. Last summer 25 Binghamton school children had the advantage of the camp.

A well-planned and well-equipped open air school for pretuberculous and malnourished children is conducted on the roof of one of the new buildings. Twenty-two children are enrolled. The doctor and nurse visit this school daily.

Milk lunches are served in all the schools to the malnourished children.

Community facilities for health promotion. The Broome County Humane Society conducts well baby clinics in five of the schools. Volunteer medical services are utilized.

The Civic Club conducts a preschool clinic in one of the schools.

Health Education

Elementary school. The supervisor of nutrition is responsible for the direction of the work.

The objective of health education in the elementary school is habit formation, as outlined in the New York syllabus.

A definite time is set aside on the program of each grade in the elementary school for health teaching, daily inspection for health habits and one period a week for hygiene and one 30-minute period a week for nutrition.

Last spring a health habit test was given the fifth grade. Another test will be given next spring to measure progress. Oral tests were used.

High school. Definite provision for direct health instruction has been made in the high school in biology, during the freshman year, and in the weekly talks on hygiene by the physical education supervisors. The athletic squads have regulations requiring strict adherence to certain health habits. Since it is considered an honor to belong to the squads the habits are adhered to. Superintendent Kelly says that all the freshmen, most of the sophomores and a large percentage of upper class men belong.

Home cooperation. The medium for home cooperation is the Parent-Teacher Association, which is a strong organization in Binghamton. In the elementary school an attempt is made to keep the classroom teacher in close touch with the homes of the children under her care. In the high school counselors are appointed for every 20 pupils. These counselors are expected to keep in close touch with homes of their students. Superintendent Kelly considers their work very effective.

Syracuse

Organization and Distribution of Responsibility

The health activities are organized through the cooperative efforts of the school board, the board of health and the Milbank Memorial Fund. The staff consists of a director of health supervision of school children and a corps of medical examiners, dentists and school nurses together with a director of health education for the school.

Health Service

Health examination. The examination is made annually by a physician. Fifteen minutes are devoted to each child, who is stripped to the waist. Sometimes the teacher is present at the examination, and the parent is encouraged to be present.

The records contain a complete inventory of all physical defects with recommendation and corrections made. Duplicate records are kept in each school and are available for the teacher. Reports are sent to parents.

Follow-up. The responsibility for the follow-up work rests with the school physicians and the school nurses. Of the total number of physical defects listed since the beginning of the school year

1922–23, more than two-thirds had been corrected before September 1925.

The Syracuse Health Demonstration, cooperatively conducted by the local board of heath and the Milbank Memorial Fund, furnishes clinical facilities for all treatments shown necessary by the physical examination.

Control of communicable disease. The program for control of communicable diseases includes:

- 1 Daily health inspection by classroom teacher for early signs of communicable disease.
- 2 Inspection by school physician when any suspicious case is found by the teacher.
- 3 The exclusion from classroom of all suspicious cases, and a ruling that all absentees are to be readmitted through the school physician.
 - 4 Immunization.
 - a Vaccination against smallpox is required.
 - b The school physicians have immunized 2000 children against diphtheria.
- 5 Absences from school hecause of contagious diseases have been reduced one-third in the past two years.

Provision for special groups. In an attempt to meet the needs of the special groups, the school system provides:

- 1 Milk lunches for all undernourished children.
- 2 Opportunity classes for atypical children.
- 3 Classes for crippled children.
- 4 An open air school for the pretuberculous children.
- 5 Sight conservation classes.
- 6 Lip reading classes for the deaf.
- 7 Treatment for goiter group.

Community facilities for health in Syracuse. These include:

- 1 Playgrounds with supervisors in charge.
- 2 The County Tuberculosis Association conducts an educational campaign for general health throughout the year and provides a preventorium for pretuberculous children.
- 3 The Syracuse Health Demonstration offers physical examinations to adults and carries on a general health program educational in character.

Health Education

This work is organized and supervised by the director of health instruction furnished to the schools by the Milbank Memorial Fund.

The New York syllabus is supplemented by a suggestive course of study. A definite time is set aside each week in each grade of the elementary school for health instruction with emphasis on habits and attitudes. Health habit inspection is conducted by health clubs organized in each of the intermediate grades. In the primary grades the teacher conducts the inspection.

Utica

Organization and Distribution of Responsibility

The health service is rendered by two half-time physicians and two full-time nurses. The health education work is left to the direction of the principals of the different schools.

Health Service

Medical inspection. The medical inspection is made by the physician on the child's entrance to school, and every three years thereafter throughout the elementary school. Five minutes are given to the child, who is not undressed. Neither parent nor teacher is present.

The defect found is written on a school blank provided for the purpose. The corrections are not always recorded. The records are kept in the classroom. The classroom teacher is responsible for them. Reports are made to the parent.

The Utica Dispensary furnishes clinical facilities for treatment of all cases. Clinics include: (1) dental, (2) medical, (3) surgical, (4) refraction, (5) skin, (6) tonsil, (7) tuberculosis, (8) venereal, where economic status of the parent does not permit the expense. The nurses' report for the year 1924–25 indicated that the majority of the defects were removed.

Health Education

The schools follow the New York State syllabus. The superintendent believes that good classroom teaching includes bringing out the chief health values in all subjects.

Schenectady

Organization and Distribution of Responsibility

The health activities are organized mainly for health service and are under the direction of the chief medical inspector.

The staff consists of the chief medical inspector, three part-time school physicians, 16 school nurses, one orthopedic worker, one nutritionist, who is responsible for the direction of the health educa-

tion, one psychometric examiner, four part-time dentists, one part-time specialist on vision.

Health Service

Health inspection. The medical inspection is annual and is made by the school physician. The records are kept in the school building and are available for the teacher. Reports are sent to the parent and to the physical education department.

Follow-up. The responsibility for the follow-up work rests upon the school nurse. The school provides dental care and care for defective vision for those who can not afford the expense. No data were secured on the number of defects corrected.

Provision for special groups. This service includes:

- 1 A special school for atypical children.
- 2 Two open air schools for pretuberculous cases.

Program for control of communicable disease. This includes:

- 1 Classroom inspection by the nurse.
- 2 Exclusion by the school physician and readmission of absentees through the same office.
 - 3 Vaccination against smallpox is required of all children.

Health Education

This year an attempt has been made to organize the health education activities. The nutritionist has direction of the work. The New York syllabus has been followed, and in one school at least correlation was evident throughout.

Rochester

Organization and Distribution of Responsibility

The work of physical education and of health education proper is organized into one department known as health education. The staff includes a director, who was formerly a director of physical education, an associate director responsible for the supervision of the health teaching, two supervisors of physical education and health instruction and four supervising or helping teachers.

The medical inspection and follow-up work by the nurses is under the direction of the city health bureau. The department of health education cooperates in the removal of physical defects.

Health Service

Medical inspection and follow-up. The medical inspection of school children is an annual affair. Four physicians from the city health bureau and corps of nurses work in a group. Not more than

five minutes are given to a child, who is not stripped. Neither parent nor teacher are present.

The records are kept in the office of the city health bureau and contain an inventory of defects found together with corrections. Reports are made to the parents and the schools.

The nurses are responsible for the follow-up work. The health education teachers cooperate in correction of defects. The report of the health bureau for 1924 shows a high percentage of defects corrected.

Four large dispensaries offer clinical facilities for correction of defects. They are

- 1 Rochester Dental Dispensary. Here, too, is a tonsilectomy clinic where most of the tonsils and adenoids are removed.
- 2 The Baden Street Dispensary for the treatment of the general physical defects of school children.
- 3 Three hospitals in the city have dispensaries which are at the service of the city health bureau for correction of defects of school children.
 - 4 The school conducts an ear clinic and an orthopedic clinic.

Provision for special groups. This service includes:

- 1 An open air school for pretuberculous cases.
- 2 Nutrition classes, weekly, conducted for children 7–10 per cent underweight (Emerson plan).
 - 3 School for crippled children.
 - 4 The serving of milk to the underweight children.

Program for control of communicable disease. This includes:

- 1 Daily inspection by classroom teachers, who refer all suspicious cases to the nurse.
- 2 Exclusion by the district physician and follow-up work of suspicious cases by the nurse.
 - 3 Vaccination against smallpox is required of all school children.
 - 4 Immunization against diphtheria is growing in popularity.

Health Education

This work is under the supervision of the associate director of health education. The objectives are health knowledge and health habits. A definite course of study is provided. Twenty minutes a week in the first, second and third grades, and thirty minutes weekly in grades 4–8 are devoted to hygiene instruction. Five minutes daily are given by the classroom teacher to routine health inspection for habit formation and for early signs of communicable disease.

Relaxation drills are conducted three times daily in the elementary school and four times daily in the high school. Ten minutes a day are spent in game instruction in each grade in the elementary school.

In four schools experiments in a modified health education program are in progress. In these schools an environment is provided which approximates the desirable from the health standpoint. In addition to this, special attention is given to the health needs of the individual child. A study also is in progress in the school system on the relation of health to absence from school.

Jamestown

Organization and Distribution of Authority

The health work of Jamestown is organized from the standpoint of health service. The staff consists of a full-time school physician, a part-time dentist, two dental hygienists and two nurses. The school physician directs the work.

Health Service

Health examinations. The medical examinations are made annually by the school physician. The child is stripped. Fifteen minutes are given to the first examination. When the child is reexamined, less time is devoted to the normal child and more to the abnormal one. The principal of the school is usually present at the examination. Sometimes the teacher is also present. The fact that the examination schedule is irregular makes it difficult for the parents to attend.

The records are kept in the office of the principal and are available to the teacher. Reports are sent to parents and to the physical education department. The records contain an inventory of defects together with recommendations and corrections.

The teachers are beginning to ask for physical examinations for themselves.

Follow-up. The school physician directs the follow-up work of the nurses and also makes home calls. The eye, ear, nose and throat clinic of the V. N. A. is utilized, as are also the tuberculosis clinic of the city health department, the behavior clinic of the State Department of Health, and the sight conservation clinic of the local Sight Conservation Commission. The part-time dentist holds a clinic two half-days a week for care of those unable to pay for the service needed. Milk is furnished by the school to all children at least 10 per cent underweight. The V. N. A. and the Associated Charities hospitalize all indigent cases.

Control of communicable disease. The teachers inspect pupils daily for early signs of communicable disease and refer all suspects to the nurse, who follows them up at once.

The city health department furnishes the school physician each morning with a list of children with communicable diseases, together with the names of all contacts. In return the school physician furnishes the city health department with a list of immunes for each disease.

Cultures are taken of all sore throats. Children with running noses are excluded from school.

All absentees are readmitted to school through the school physician. Vaccination is not required in cities the size of Jamestown, and is not popular in the city. Immunization against diphtheria was to begin directly after the 1925 Christmas holidays.

Community facilities for health. The city has a wide awake health department that carries on a good program for control of communicable disease. The department carries on a vigorous campaign to improve the milk supply. All the cattle furnishing milk to Jamestown are tuberculin tested, and about 30 per cent of the milk consumed by the city is pasteurized. An effort to secure 100 per cent pasteurization is under way.

The Visiting Nurse Association conducts a health center from which four nurses are sent out to give bedside care to the sick. They conduct six clinics at which medical men volunteer their services. These clinics are as follows:

- 1 Sick children weekly
- 2 Eye, ear, nose and throat biweekly
- 3 Prenatal biweekly
- 4 Mental (state psychiatrist) monthly
- 5 Child feeding weekly
- 6 Crippled children monthly

The Charities Aid Society assists in hospitalizing children in need of care. It also furnishes milk and supplements the diet in the home where the nutritional status of the child warrants it and where the parents' or mothers' club has not assumed the responsibility.

Playgrounds. "The Hundred Acre Tract" and old-time city picnic ground, now reduced to 52 acres, is owned by a semiofficial committee and used for a city park and playground. It is available to the schools for excursions, play and picnics.

The city furnishes supervisors for the school playgrounds in the summer.

Health Education

Elementary school. The responsibility rests with the principals of the various schools. Interest is stimulated by the school physician. The school system follows the New York syllabus and health habit inspection is conducted daily by the classroom teacher.

Junior high school. Health education in the junior high school is a part of the other subjects except in the seventh grade where hygiene is taught; in the eighth grade the health work is in general science; in the ninth grade it is in the biology course.

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